



GREEN INFRASTRUCTURE AT MEDSTAR HARBOR HOSPITAL

A hospital's green space aids recovery and filters stormwater pollution

PROJECT GOALS

Use green infrastructure practices to improve Baltimore's water quality by reducing the overall amount of impervious surfaces across the city while helping to combat chronic flooding at MedStar Harbor Hospital.

COMMUNITY AND ECONOMIC BENEFITS

- Implementing stormwater management efforts to enhanced the natural beauty of the hospital grounds.
- Installing green spaces provides a calming atmosphere for patients and employees.
- Educational signage engages the community on the important links between environmental and public health.
- Enhanced pedestrian safety and ADA accessibility.
- Improved parking access due to flooding remediation.

ENVIRONMENTAL BENEFITS

- Rain gardens help reduce flooding on hospital grounds and create aesthetically pleasing areas.
- Trees increase air and water quality by serving as both a natural filter for excess nutrients and a carbon sink.
- Riparian vegetation planted along the riverbank lessens streambank erosion and reduces the volume of stormwater runoff entering the water.
- Planting trees along the river creates upland wildlife habitat and provides shade and cooler water temperatures for aquatic life.
- Planting native trees and vegetation provides natural water filtration, reduces soil erosion and helps soils to absorb and retain nutrients, which reduces the amount of nutrients and sediment leaving the landscape.



Green infrastructure, including a healing garden and bioretention basins landscaped with over 5,000 native plants and shrubs, treats stormwater pollution from five acres of impervious surface on the campus of MedStar Harbor Hospital in Baltimore on May 21, 2019. *Photo by Will Parson/ Chesapeake Bay Program.*

“ We’re really hoping to use this as an example for other institutional properties to get them thinking about what they can do creatively on their property and with their resources [to reduce pollution].”

- **Jenn Aiosa**

Executive Director, Blue Water Baltimore

PROJECT SUMMARY

The 30-acre MedStar Harbor Hospital campus, which is directly adjacent to the Patapsco River, includes lawn areas, buildings and parking lots. Before the project, stormwater flowing off the property carried pollutants directly into the river and then into the Chesapeake Bay. As part of a 15-year sustainability effort, the hospital began work with Blue Water Baltimore on the Clean Water Community Healing Project in 2016, and most projects were completed by 2019.

This effort is the largest private voluntary stormwater restoration project in Baltimore. It has reduced stormwater runoff, transformed an urban waterfront with conservation landscaping and increased the urban tree canopy. By educating and engaging the community on the link between environmental and public health, the project is also supporting one of the hospital's important outreach goals.

The Clean Water Community Healing Project retrofitted the hospital's four major parking lots with two rain gardens, 12 bioretention areas, over 16,000 square feet of conservation landscaping and almost 100 new trees.

The project improved pedestrian safety and ADA accessibility, while creating educational signage for the community about green infrastructure and established the Healing Gardens – a natural area where people can sit and look out over the water.

MedStar Harbor Hospital continues to work on their conservation landscaping using native plants from Herring Run Nursery. In the near future, the hospital hopes to develop a living shoreline along the river.

THE PARTNERS AND FUNDING SOURCES

- Chesapeake Bay Trust
- Maryland Department of Natural Resources
- SMC (formerly Stormwater Maintenance & Consulting)
- CityScape Engineering
- Plisko Sustainable Solutions
- SBC Landscaping
- Rain Underground
- Blue Water Baltimore
- MedStar Harbor Hospital

CONTACT

 Sarah Holter – Blue Water Baltimore

 410.254.1577



Plants placed between impervious surface area and the drainage channel will help to absorb and slow the flow of stormwater. *Photo by Will Parson/Chesapeake Bay Program.*

CONSERVATION PROJECTS INSTALLED

- Bioretention systems.
- Rain gardens.
- Planting of native trees and vegetation.

THINGS TO CONSIDER

- Maintenance needs of green infrastructure and natural areas should be included in planning and annual budgeting.
- Ongoing responsibilities of individual partners should be identified to ensure project remains successful and beneficial to the larger community.
- The project helps raise awareness and could serve as a catalyst for other community-based watershed protection efforts.

